

## Interaction of shallow seeding and herbicides in wheat

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**Summary** Two field trials under weed free conditions were conducted during 2015 at Mullewa and Katanning Research Facilities to determine the tolerance of commonly grown wheat varieties to herbicides. The trials were laid out in criss-cross design having six wheat varieties and 11–13 herbicide treatments with three replications.

Interaction of shallow seeding, good soil moisture and soil residual herbicides terbuthylazine 1050 g and 2100 g ha<sup>-1</sup>, terbuthylazine 1050 g + trifluralin 1440 g ha<sup>-1</sup>, and pyroxasulfone 100.3 g + trifluralin 1440 g ha<sup>-1</sup> caused significant yield reduction across all the wheat varieties at Mullewa on a sandy loam/loam soil. A mixture of sulfosulfuron 18.75 g ha<sup>-1</sup> with trifluralin 1440 g ha<sup>-1</sup> also registered significant yield loss in Bonnie Rock, Calingiri, Corack and Eagle Rock at Mullewa. In contrast, only the higher rate of terbuthylazine caused significant yield reduction in

Calingiri, Mace and Yitpi at Katanning where varieties were sown at optimum depth of 3–4 cm on a sandy loam soil having good soil moisture.

Pre-emergent trifluralin 1440 g ha<sup>-1</sup> followed by post-emergent s-metolachlor 300 g + prosulfocarb 2000 g ha<sup>-1</sup> at Z12–Z13 caused significant yield loss in Bonnie Rock and Corack at Mullewa, but this sequential application was tolerated well by all the varieties at Katanning.

Metribuzin 75 g + carfentrazone 18 g + MCPA amine 250 g ha<sup>-1</sup> and its double the rate applied at Z13–Z14 caused significant yield reduction across all the wheat varieties at Mullewa. However, at Katanning only Cobra, Mace, Trojan and Yitpi registered significant yield loss with the higher rate of this mixture.

**Keywords** Wheat, herbicides, seeding depth, grain yield.